REMARKS

According to the Restriction requirement of July 1, 2009, the Examiner has required Applicant to elect a single invention among: Group 1, claims 31-42 and 51, drawn to PNA conjugates of Formula I; Group 2, claims 43-50 drawn to a method of making the conjugate of Group 1; Group 3, claims 52-54 and 56, drawn to methods of using the conjugates of Group 1 to modify gene expression and treat disease; and Group 4, claim 55, drawn to a method of targeting PNA oligomers to non-mitochondrial sites within a cell.

Applicant elects to continue prosecution of Group 1, namely, claims 31-42 and 51, drawn to PNA conjugates of Formula I, **with traverse**.

It is respectfully submitted that the inventions of Groups I – IV are related to a single general inventive concept under PCT Rule 13.1 because the inventions share the same or corresponding special technical features. The Examiner suggests that the groups of inventions do not relate to a single general inventive concept despite the fact that the groups all require the technical feature of the PNA conjugate of Group 1. The Examiner alleges that this feature is not a special technical feature as it does not make a contribution over the prior art in view of Muratovska et al. (Nucleic Acids Research, 2001, Vol. 29, No. 9, pp1852-1863).

According to Applicant's understanding, the Examiner suggests that the PNA conjugates of formula 1 of this application are disclosed in Muratovska et al. in the reaction scheme at the top of Figure 1 on page 1856. Consequently, the conjugates themselves are not novel and cannot provide a unifying feature for the sets of claims identified. However, the Examiner has misinterpreted Muratovska et al.

The claims of the present application specify that the conjugates of Formula I contain a disulphide group. The peptide nucleic acid (PNA) is attached to a thiol-containing attachment group, which itself is bound to a second sulphur atom. The second

sulphur atom is attached to the triphenyl phosphonium (TPP) cation via a linker group. The disulfide bond formed by the two sulphur atoms is an important feature of the claims. As discussed on page 8, lines 20-32, the disulfide bond is labile in the cytoplasm. Therefore, in contrast to the conjugates disclosed in Muratovska et al., the PNA is released into the cytoplasm and does not accumulate in the mitochondria.

In Muratovska et al. the PNA is directly conjugated through a thioether moiety to an alkylene linker chain which attaches to the TPP group. The thioether moiety is not labile so the PNA remains conjugated to the triphenylphosphonium cation and is taken into the mitochondria.

The Examiner has misinterpreted the structure of the PNA-TPP conjugates in Figure 1 because the thiol moiety of the cysteine group is depicted separately, in addition to the "Cys" code generally used to depict the amino acid.

The Examiner has interpreted this as meaning that the conjugate shown in Figure 1 contains a disulphide bond comprising the cysteine thiol sulphur and a second sulphur atom. However, this is clearly not the case as evidenced by both the depiction of the conjugate starting material in Figure 1 and the discussion on page 1855 under "Synthesis and characterisation of ph-PNA conjugates." Here, the paper describes cysteine residues incorporated into the PNA and the triphenylphosphonium cation (Fig. 1).

Clearly, no disulphide bond is present in Figure 1 of Muratovska et al. Consequently, this document does not prior publish the conjugate of formula I and the groups of inventions satisfy the unity of invention requirements.

Because the inventions in Groups I – IV are related to a single general inventive concept under PCT Rule 13.1 for the reasons stated above, withdrawal of the restriction requirement is respectfully requested.

An action on the merits of all of the claims and a Notice of Allowance thereof are also respectfully requested.

Respectfully submitted,

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